SHEVELEV, M.L.; TIKHONOV, A.S., kandidat tekhnicheskikh nauk dotsent, retsenzent;
SHAROV, N.V., inzhener, retsenzent; PCHELINTSEV,V.A.,inzhener,retsenzent;
TEMKIN, A.V., redaktor; MATVEYEVA, Ye.N., tekhnicheskiy redaktor.

[Fire prevention in machine building] Protivopozharnaia tekhnika v
mashinostroenii. Izd.2-Oe, perer. i dop. Moskva, Gos.nauchno-tekhn.
izd-vo mashinostroit. lit-ry, 1955.208 p.   (MLRA 9:6)
          (Factories--Fires and fire prevention)

VOZYAEV, V.; SHAROV, A.

Fire prevention in German Democratic Republic. Pozh.delo 3
no.5:29-30 My '57.
            (Germany, East--Fire prevention)
            (MIRA 10:7)

SHAROV, N., inzh.

From horse-drawn wagons to perfect fire engines. Pozh. delo 4
no.4:26-27 Ap '58.   (MIRA 11:5)

(Fire engines)

RODE, Aleksandr Aleksandrovich; SHAROV, N.V.. red.; FONBERSHTEYN,
A.D., red.izd-va; LELYUKHIN, A.A., tekhn.red.

[Platform-type nozzles] Lafetnye stvoly. Moskva, Izd-vo M-va
kommun.khoz.RSFSR, 1959. 81 p.   (MIRA 12:9)
(Fire engines)

SHAROV, N.

Prospects for the development of fire equipment. Pozh. del● 5
no.3:27-28 Mr '59.
                                    (MIRA 12:5)

1.Zamestitel' nachal'nika otdeleniya Glavnoge upravleniya pozharnoy
okhrany.

            (Fire engines)

SHAROV, N., inzh.; SHEBEKO, N., inzh.

Mechanized tool. Pozh.delo 5 no.12:27-28 D '59.
(MIRA 13:4)
(Fire departments—Equipment and supplies)
(Chain saws)

SHAROV, N.V., inzh., red.; SHEBEKO, N.D., inzh., red.; UCHITEL', I.Z.,
        red.izd-va; SALAZKOV, N.P., tekhn.red.

    [Equipment for fire prevention and extinction; catalog-manual]
    Protivopozharnoe oborudovanie; katalog-spravochnik. Moskva,
    Izd-vo M-va kommun.khoz.RSFSR, 1960. 151 p.
                                                    (MIRA 13:11)
        (Fire extinction--Equipment and supplies)

SHAROV, N.; GOLUBEV, S.

Create a museum of fire prevention. Pozh.delo 6 no.1:32 Ja
'60.
          (Fire prevention--Exhibitions)   (MIRA 13:5)

KHMELEV, Nikolay Vladimirovich; SHAROV, Nikolay Vladimirovich; RODE, A.A.,
    red.; RACHEVSKAYA, M.I., red. Izd-va; SALAZKOV, N.P., tekhn.red.

[Fire motor pumper and water tank trucks] Pozharnye avtonasosy
i avtotsisterny. Moskva, Izd-vo M-va kommun. khoz. RSFSR, 1962.
211 p.   (MIRA 16:6)
                    (Fire engines)

18(5)   SOV/125-59-9-5/16

AUTHOR: Medovar, B.I.. Candidate of Technical Sciences, Safon-
             nikov, A.N.,   Belkin,Ye.Ya., and Sharov,O.A., Engineers

TITLE: Electric Welding under Slag of Ageing Chrome-Nickel-
             Aluminum Stainless Steel

PERIODICAL: Avtomaticheskaya svarka, 1959, Nr 9, pp 33-44 (USSR)

ABSTRACT: Precipitation-hardening stainless steels, such as chro-
             me-nickel austenitic steels possessing high plastic
             qualities, have a comparatively low strength limit;
             the latter property hampers their use, in cases where
             constructions must have a minimum weight at the maxi-
             mum strength. Research has disclosed that the most ef-
             ficient method to augment their strength is the crea-
             tion of martensite in their structure. In the Soviet
             Union, the chrome-nickel-aluminum stainless steel,
             Type Kh 15N9Yu make SN-2 or EI904, is widely used. The
             transformation of austenite to martensite in steel SN-2
             is realized by cold-treatment (4 hours at -50°C or 2
Card 1/3   hours at -79°C). This process leads to a considerable

SOV/125-59-9-5/16

Electric Welding under Slag of Ageing Chrome-Nickel-Aluminum
Stainless Steel

increase in strength, but does not change the steel
fluidity limit. The works of A.P. Gulyayev, S.V. Tep-
nev and Ya.M.Potak maintain that the above properties
are specific for transitional stages, that is, in this
case for austenitic-martensitic steels. Their fluidity
limit is about 40 kg/mm^2, while their strength is
100-200 kg/mm^2. The SN-2 steel is not only austenitic-
martensitic; it is, at the same time, a precipitation-
hardening steel. On the basis of numerous experiments,
two methods for electric welding of SN-2 steel were
accepted for general use: 1) Welding by means of elec-
trode made of SN-2 steel (same as the base material)
under application of flux ANF-7 (CaF$_2$ – CaO) and using
obligatory pre-heating, and 2) welding without pre-hea-
ting, applying a new fluoride flux ANF-14 (65^d CaF$_2$,
16^d SiO$_2$, 3^d CaO, 6^d MgO, and 10^d Al$_2$O$_3$). Research

Card 2/3   has disclosed that electric welding of stainless

SOV/125-59-9-5-16

Electric Welding under Slag of Ageing Chrome-Nickel-Aluminum
Stainless Steel

chrome-nickel-aluminum steel SN-2 by means of a large
section electrode made of the same steel does not eli-
minate the appearance of non-fused spots, if a fluo-
ride flux with increased aluminum oxide contents is
used. The negative influence of aluminum oxide can be
entirely neutralized by introduction into the flux of
a certain amount of silicon oxide or calcium oxide, se-
parately or combined. There are 3 tables, 1 diagram,
6 photographs and 18 references, 9 of which are Soviet,
6 English, 1 French and 2 German.

ASSOCIATION: 1) Ordena trudovogo krasnogo znameni institut elektro-
svarki imeni Ye.O.Patona AN USSR (Order of the Red
Banner of Labor Institute of Electric Welding imeni
Ye.O. Paton,AS Ukr SSR)(Medovar; Safonnikov);2) Moskovs-
kiy sovnarkhoz (Moscow Sovnarkhoz) (Belkin; Sharov).

SUBMITTED: May 26, 1959

Card 3/3

SHAROV, P. G.   PA 245T89

USSR/Meteorology - Wind Vane   Nov 52

"An Adjustment to the Wind Vane for More Accurate
Determination of Wind Direction," P. G. Sharov,
Nozhovka Meteorological Sta, Molotov Oblast

"Meteorol i Gidrol" No 11, p 53

Recommends the strengthening of the solid part of the
wind vane with a metal collar having eight projections
corresponding to the eight compass points.

                                            245T89

SHAROV, P. G.   PA 237T68

USSR/Geophysics - Thunder Squalls   Dec 52

"Thunderstorm With Hail and Destructive Strong
Wind," P.G. Sharov, Nozhovka Meteorological Sta-
tion, Molotov Oblast

"Meteorol i Gidrol" No 12, p 42

Describes the effect of a thunder squall in Yelovsk
area of Molotov Oblast on 13 June 52. Presents
in detail the meteorological observations made
during the arrival and passing of the squall.

237T68

DERBAREMDI: ER, M.I.; SEREBRENNIKOVA, K.L.; TERNOVSKIY, V.A.; Prinimali
      uchastiye; SHAROV P.M., NOVIKOV, L.Z.; LUR'YE, B.I.; PIS'MEN,
      M.K.; KARABIN, A.I. [deceased]; KOSTIN, L.I.; FROLOV, V.P.;
      MEDVEDEV, F.V.; GELIMKHANOV, S.G.; BONDAR', V.G.; TIMOFEYEV,
      P.I.; MININA, L.V.; ARBEKOV, F.F.; NIKOLAYEV, N.I.; YAROSLAV,
      T.Ye.; NUDEL'MAN, V.G.

Gasification of mazut under pressure in a steam-oxygen blast.
Gaz. prom. 9 no.11:49-50 '64.   (MIRA 17:12)

"Concerning zooveterinary servicing of consolidated kolkhoz."

So: Vet. 2? (3) 1 51, p. ?

Lenin Rayon Dept. of Agriculture, Tula Oblast.

SHAROV, S.

Developing consolidated time norms for guillotine cutting of
sheet metal. Biul.nauch. inform.: trud i zar. plata 5 no.3:
44-47 '62.   (MIRA 15:3)
         (Kalinin—Sheet metal work—Production standards)

SHAROV, S. I.

"Equilibrium of Ferrous Sulphide Dissociation and Activity of a Solid Solution of Sulphur in Ferrous Sulphide," Dok. AN, 33, No. 4, 1941. Tr., Lab. Physical Chemistry, Moscow Inst. c1941-.

SHAROV, S.I., professor, dokter tekhnicheskikh nauk.

Kinetics of iron oxidation in sulfide melts. Sbor.Inst.stali 34:
122-127 '55.   (MLRA 9:7)

1.Kafedra metallurgii chuguna.
(Iron--Isotopes) (Sulfides)

ZLOBINSKIY, Boris Mikhaylovich; TSYLEV, L.M., professor, doktor tekhniche-
    skikh nauk, retsenzent; SHAROV, S.I., professor, doktor tekhnicheskikh
    nauk, retsenzent; AGROSKIN, A.A., professor, doktor tekhnicheskikh
    nauk, otvetstvennyy redaktor; RYKOV, N.A., redaktor izdatel'stva;
    NADEINSKAYA, A.A., tekhnicheskiy redaktor

[Brown coal as fuel in metallurgy] Buryi ugl' kak metallurgicheskoe
toplivo. Moskva, Ugletekhizdat, 1956. 37 p.   (MLRA 9:11)
    (Lignite)

DENISENKO, P.A., inzhener; SHAROV, S.I., inzhener.

Improving high-pressure control valves. Elek.sts. 28 no.8:65-66
Ag '57.   (MIRA 10:10)
                    (Boilers--Safety appliances)

AUTHORS: Krivov, V. A.; Morozov, A. I.

TITLE: Kinetics of the Transition of Sulfur From Pig-Iron to Slag
of the Blast-Furnace Type (Kinetika perekhoda sery iz chuguna
v shlaki domennogo tipa)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1958,
Nr 4, pp 49-49 (USSR)

ABSTRACT: This investigation was undertaken in order to determine the
member limiting the desulfurizing process in blast-furnace
melts. Slag systems consisting of CaO, SiO_2 and Al_2O_3 were
tested. The slags were obtained by melting
thermally pure components. The content of Al_2O_3 was 10% for
all analyzed slags; the ratio CaO/SiO_2 varied between 0.9 and
1.2. The pig-iron was obtained by carburization of a
technically pure Armco-iron. The tests were made in special
graphite crucibles in the Tamman furnace. Meltings with the
radioactive isotope of iron showed that no iron turns into the
slag during the process. Melting with intermixing of the slag
phase showed that the speed of the process is thereby increased.
From the data obtained one can see that the process is

Card 1/2

Kinetics of the Transition of Sulfur From Pig-Iron   SOV/163-58-4-5/47
to Slag of the Blast-Furnace Type

decelerated by the diffusion in the double diffusion layer
(metal slag). The respective formulae of diffusion, material
flow through the diffusion layer, and the constants of speed
are given. It is stated that if the reaction is decelerated by
the diffusion in the double diffusion layer it is accelerated
by intermixing both phases. There are 4 figures and
11 references, 5 of which are Soviet.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: April 25, 1958

Card 2/2

Pelletizing of Iron Ore Concentrates and Fine Ores 133-58-4-2/40

on a sintering pan by combustion of a gas-air mixture over the layer of pellets (Fig.2). The most suitable firing conditions for a given raw material were established in separate experiments. Gas permeability and reducibility of pellets were compared with those of sinter indicating the superiority of pellets in both respects. On the basis of a large number of experiments on firing pellets in a sinter pan it is claimed that a throughput of a Dwilight Lloyd sinter strand of 50 m^2 surface area and an ignition time of 28 min can be 2000 tons/day. The consumption of heat under laboratory conditions was 329 cal/kg which is smaller than that in sintering, can be further decreased by increasing the bed height. Blast furnace gas with a small addition of coke oven gas can be used for the purpose. In the Moscow Institute of Steel a scheme for industrial production pellets was developed (Fig.4) and in 1958 semi-industrial

Card 2/2   and industrial experimental production of pellets from Krivoy Rog concentrates and their smelting in blast furnaces will be carried out.
There are 4 figures.
ASSOCIATION: Moskovskiy institut stali (Moscow Institute of Steel)
            1. Ores--Processing   2. Pellets--Production

GRUZINOV, Vladimir Konstantinovich; MANCHINSKIY, V.G., dotsent, kand.
tekhn.nauk, retsenzent; SHAROV, S.I., prof., doktor tekhn.nauk,
red.; SYRCHINA, M.M., red.izd-va; MATLYUK, R.M., tekhn.red.

[Controlling the flow of gases in blast furnaces by means of
programmed burdening] Upravlenie gazovym potokom v domennoi
pechi programmnoi zagruzkoi. Sverdlovsk, Gos.nauchno-tekhn.
izd-vo lit-ry po chernoi i tsvetnoi metallurgii, Sverdlovskoe
otd-nie, 1960. 214 p.   (MIRA 13:10)
        (Blast furnaces)   (Gas flow)

AUTHORS: Krivousov, [...] R., [...]

TITLE: Desulfuration [...]

PERIODICAL   Izvestiya vysshikh [...]
             no. 7, 196[...], 1[...]

TEXT: Regularities of [...]
fully studied. V. Yu. Vasil'ye[...] [...]
shlakakh (Blast Furnace Melting in S[...]Slags) [...], Fizm. [...]
stated that 56 % of the initial S [...]
belt with the descending charge, and [...] [S'] [...]
by certain laws; the desulfuration [...]
concentration) has a determining [...] A. [...] koles (Ref. 2:
Chuguni, domennyye shlaki i rasse[...] [...] Blast Furnace Slag,
and Charge Calculations), ONTI [...], [...] 196[...] and V. [...]
kovoynikov (Ref. 3: Sb. trudov [...], 19[...]) [...]
ration takes place rapidly, [...]
("top desulfuration"). The [...]

Card 1/[...]

Desulfuration process in the ... ...

culated, and it is stated that ...
with metal and slag (aster ...
minary to slag tapping) ...
of the second period (periodional ...
into the hearth with the ...
general higher furnace productivity ...
iron. Another factor that may ...
is the variation of the "... desulfuration ...
(Ref. 7: Trudy NTO ... M, ...
Shvartsman (Ref. 8: S-...
1 - 5 Iyulya 1 ... (Session ...
Energy, 1 - 5 July, 1955) ...
O. A. Yesin and V. N. Shishov ...
metallurgic reactions can take ...
sov and S. I. Sharov (Ref. ...
1958, no. 4) stated that the ...
fusion near the slag-metal b... ...
follows that the desulfuration ...
or slag, or both are being ...
Iron and Steel Inst. Japan...

Card 2/3

Desulfuration process in the blast furnace hearth.   A161/A033

raised by periodical oxygen blowing through the iron in the blast furnace
hearth. The authors suggest that the desulfurating capacity of slag be raised
instead of raising its basicity, which is much more economical as a large
quantity is not required; this can be achieved by an increased distance between
the iron and the slag tap holes (less sulfur will then arrive into the hearth
during the 2nd and 3rd heat periods). However, the increase of the hearth
depth meets with some objections as the metal and slag become too cold at the
boundary in too deep a hearth, and the "bottom desulfuration" slows down. For
this point, mixing of metal with slag must be beneficial for it will even out
the temperature through the hearth height, and the "top desulfuration" process
would be intensified without impairing the "bottom desulfuration". Ways for
raising the desulfurating capacity of slag must be found in further studies.
There are 11 references: 7 Soviet-bloc and 4 non-Soviet bloc. The references
to English language publications read as follows: B. Hatch and J. Chipman, J.
of Met.,IV, 274, 1949; N. I. Grant, U. Kalling, J. Chipman, J. of Met., VIII,
1951; N. I. Grant, O. Troili, J. Chipman. J. of Met., VIII, 1951; Hanamori.
J. Iron and Steel Inst. Japan. 1954, No. 7 43.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: May 27, 1959
Card 3/3

POKHVISNEV, A.N.; SHAROV, S.I.; INOZEMTSEV, N.S.

Desulfuration of cast iron in the ladle by liquid blast-furnace slag. Stal' 22 no.6:487-490 Je '62. (MIRA 16:7)

(Cast iron—Metallurgy)
(Desulfuration)

SHAROV, S.I., VEGMAN, Ye.F.; NORIK. N.P.; GORYAINOV, A.P.

Mineral formation pattern during the sintering of iron ores
from the Kursk Magnetic Anomaly. Izv. vys. ucheb. zav.;
chern. met. 7 no.11:24-28 '64.
(MIRA 17:12)

1. Moskovskiy institut stali i splavov i Novo-Lipetskiy
metallurgicheskiy zavod.

ZHILKIN, N.K.; INOZEMTSEV, N.S.; ORLOV, Yu.A.; POKHVISNEV, A.N.;
       SHAROV, S.I.

    Processes in the hearth of a powerful blast furnace.   Izv. vys.
    ucheb. zav.; chern. met. 7 no.11:34-40 '64.   (MIRA 17:12)

    1. Moskovskiy institut stali i splavov.

POKHVISNEV, A.N.; SHAROV, S.I.; ZHILKIN, N.K.; ORLOV, Yu.A.; MATVEYEV, P.M.; VASIL'YEV, S.V.; VIZLOV, Ye.M.

Operation of a 2,000 m^3 capacity blast furnace. Metallurg. 9 no.1:7-11 Ja '64   (MIRA 18:1)

L 35055-65   EPA/EWT(1)/EWP(f)/EWG(v)/T-2/EPA(bb)-2   Pe-5/Pw-4   WW

ACCESSION NR: AP5002229   S/0114/64/000/012/0044/0044

AUTHOR: Sharov, S. T. (Engineer)

TITLE: Calculation of average parameters of the gas stream in a centrifugal-compressor rotor

SOURCE: Energomashinostroyeniye, no. 12, 1964, 44

TOPIC TAGS: centrifugal compressor, gas compressor, compressor rotor

ABSTRACT: The problem of gas flow in the vane channel of a compressor rotor is considered with an allowance for the gas compressibility which is described by:

$$M = \frac{w}{a} = \frac{w}{\sqrt{kgRT}},$$ where w is the relative speed and "a" is the local speed of sound. A continuity equation for the gas-flow midline and an energy-conservation in the relative motion are set up, solved, and a parameter z is determined (formula 9). This parameter permits, $M = f(z)$, graphical determination of the

Card 1/2

L 35055–65
ACCESSION NR: AP5002229

Mach number effective along the midline of the channel. The average parameters
of the gas flow can be calculated from this Mach number. Orig. art. has:
1 figure and 10 formulas.

ASSOCIATION: none

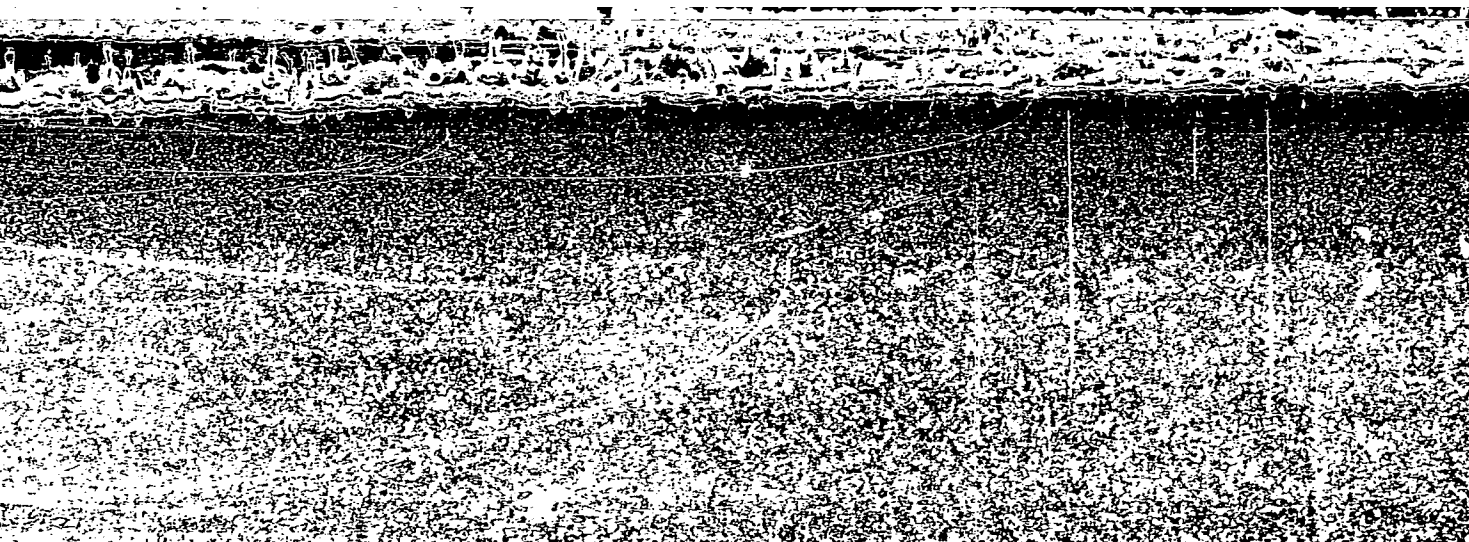SUBMITTED: 00   ENCL: 00   SUB CODE: PR

NO REF SOV: 003   OTHER: 000

Card 2/2
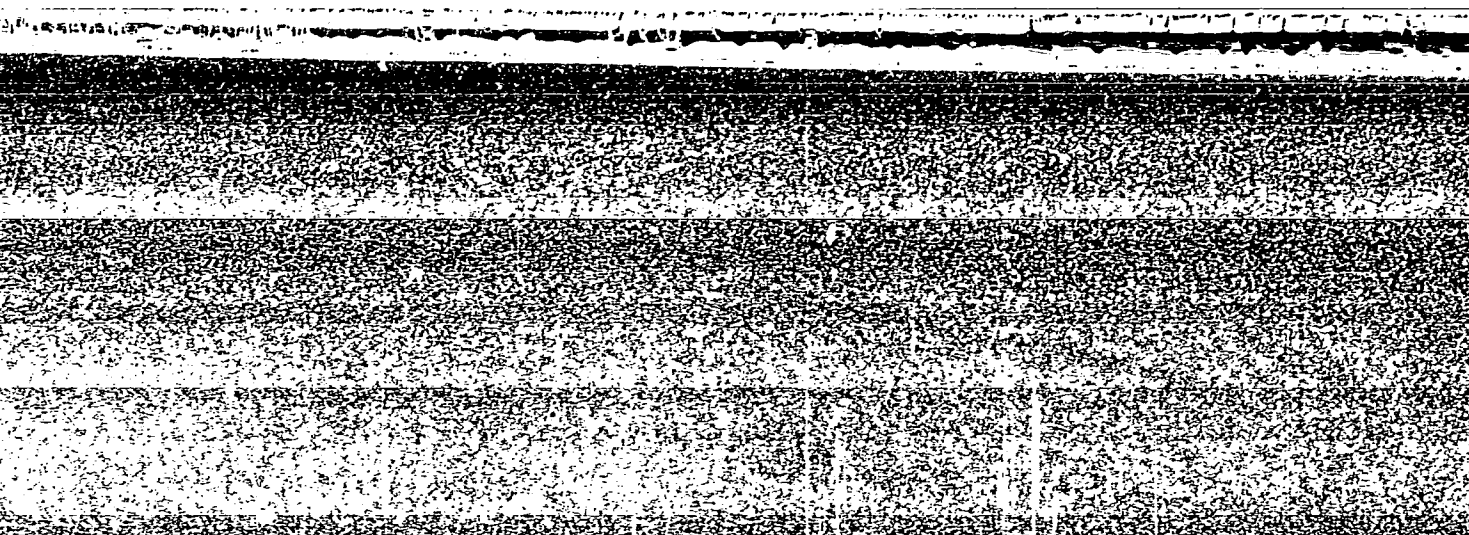
SHAROV, S.T., inzh.

Calculation of the average parameters of gas flow in the rotor wheel of a centrifugal compressor. Energomashinostroenie 10 no.12:44 D '64.   (MIRA 18:2)

MORGULIS, Yu.; SHAROV, V., glavnyy dispetcher-inzhener.

"Manual for workers of the leather industry". Edit. V.A. Volkov,
D.N. Zhemochkin, Reviewed by IU.Morgulis. Leg.prom. 14 no.5:53-54
My '54.   (MLRA 7:6)

1. Glavnyy inzhener zavoda im. Tel'mana (for Morgulis)
       (Leather industry)

SHAROV, V

MORGULIS,Yu., inzhener; SHAROV,V., inzhener

"A tanner's manual." Reviewed by IU.Morgulis, V.Sharov. Leg.
prom.15 no.8:53 Ag '55.   (MLRA 8:10)
                    (Tanning)

SHAROV, V.

Book about electric clocks. Zhil.-kom.khoz. 10 no.2:34 '60.
(MIRA 13:5)

1. Nachal'nik tsekha dispetcherskoy svyazi Ministerstva putey
soobshcheniya.
(Clocks, Electric)

SHAROV, V.

A case of stationary circular whirlwind. p. 59

KHIDROLOGIIA I METEOROLOGIIA. (Ministerstvo na zemedelieto. Khidrometeorologichna sluzhba) Sofia, Bulgaria, No. 5, 1959

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 12, December 1959
Uncl.

SHAROV, V.

Our way to the industrialization of construction on state farms.
Sel'.stroi. no.11:6 N '62.   (MIRA 15:12)
(Gorkiy Province—State farms)
(Construction industry)

SHAROV, V.A., kand.veter.nauk; GAZARKH, Z.S.

Diagnosis of paratuberculosis in sheep and goats. Trudy VIEV
26:135-138 '62.   (MIRA 16:2)

1. Laboratoriya po izucheniyu tuberkuleza i paratuberkuleza
Vsesoyuznogo instituta eksperimental'noy veterinarii.
                        (Johne's disease)

GAZARKH, Z.S., starshiy nauchnyy sotrudnik; SHAROV, V.A., mladshiy nauchnyy
        sotrudnik

Complement fixation reaction in the diagnosis of paratuberculosis.
Veterianriia 38 no.2:25-28 F '61.   (MIRA 18:1)

1. Vsesoyuznyy institut eksperimental'noy veterinarii.

SHAROV, Vl.

On the macro-vortex formation in the atmosphere. Khidro i meteorolog
no.4:11-16 '60.   (EEAI 10:2)
         (Vortex motion)   (Atmosphere)

SHAROV, Vl.

On the alteration of the barometric atmospheric field. Khidro i
meteorolog no.6:46-53 '60. (EEAI 10:6)
(Barometric hypsometry)   (Atmospheric turbulence)

SHAROV, Vl. (Bolgariya)

Formation and change of large-scale vortices in the atmosphere.
Meteor. i gidrol. no.2:9-15 F. '62.   (MIRA 15:2)
                    (Atmosphere)
                    (Vortex-motion)

SHAROV, Vl.; BLAGOEV, Khr.; STOIANOVA, B.; STEFANOVA, M.

Stability of the anticyclonetype of weather over Bulgaria.
Khidro i meteorolog 6 10-20 '63.

1. Chlen na Redaktsionnata kolegiia, "Khidrologiia i meteoro-
   logiia" (for Blagoev).

SHAROV, Vl.

Spatial differentiation of meteorological functional fields.
Khidro i meteorolog 13 no. 2:10-14 '64.

SHAROV, V.A., Cand Vet Sci —(diss) " Determination of the degree

of freshness of ~~inhibition~~ subproducts." Mos, 1959. 21 pp

(Mos Vet Acad of Agr RSFSR), 140 copies (KL,29-59, 130)

~65~—

SHAROV, V. A. (Junior Scientific Collaborator, VIEV), and GAZARKH, Z. S. (Senior
            Scientific Collaborator).

"Complement fixation reaction used in the diagnosis of paratuberculosis."

Veterinariya, Vol. 38, No. 2, 1961, p. 25.

L 05671-67   EWP(1)/EWT(d)   IJP(c)   GG/BB

ACC NR: AR6023253   SOURCE CODE: UR/0044/66/000/003/V077/V077

AUTHOR: Bukhgol'ts, N. V.; D'yachenko, V. F.; Lazarev, V. G.; Chernyshev, K. K.;
Sharov, V. A.

REF SOURCE: Sb. Vychisl. sistemy. Vyp. 18. Novosibirsk, 1965, 119-137

TITLE: On the problem of economy of a computer operating memory

SOURCE: Ref. zh. Matematika, Abs. 3V371

TOPIC TAGS: computer memory, computer programming, computer storage device

TRANSLATION: An application for computer storage of programs and constants used for
the automatic control of a constant memory makes it possible to decrease the volume of
the operating memory. The problem is solved without introducing changes in the program
to find an image of the set of program variables in its field of operation such that
the number of operating cells is a minimum. To construct this image, a space-time dia-
gram is made up of traces of variables and their projections, making it possible to
combine the addresses of different variables. Theorems are proved on the minimum num-
ber of addresses of variables in the program. A block diagram for the program of mini-
mizing the number of memory cells is given. Offered as an example is a program for the
computation of square roots requiring five operating cells. A programmer of average

UDC: 681.142.001:51

Card 1/2

L 05671-67

ACC NR: AR6023253

skill used 8 cells. The method set forth here is applicable to ready-made programs, in systems of automatic programming, and in the design of specialized computers. 6 figures, 10 references. Yu. M.

SUB CODE: 09/   SUBM DATE: none

Card 2/2

ACC NRi AR6021233   SOURCE CODE: UR/0271/66/000/003/B007/B007

AUTHOR: Bukhgol'ts, N. V.; D'yachenko, V. P.; Lazarev, V. G.; Chernyshev, K. K.;
Sharov, V. A.

TITLE: The economy of digital computer memory

SOURCE: Ref. zh. Avtomat telemekh i vychisl tekhn, Abs. 3B64

REF SOURCE: Sb. Vychisl. sistemy. Vyp. 18, Novosibirsk, 1965, 119-137

TOPIC TAGS: computer memory, computer program logic, computer design, digital
computer

ABSTRACT: The use of read-only memory units for program and constants storing in
automatic control computers makes it possible to reduce the volume of immediate-access
storage units. Without introducing changes in the existing programs, the problem of
mapping a set of program variables on its operating field is solved in order to obtain
a minimum number of working cells. The method is applicable to automatic programming
systems, to complete programs, and to special-purpose computer design. [Translation
of abstract] 6 illustrations and bibliography of 10 titles. Yu. M.

SUB CODE: 09

Card 1/1   UDC: 681.142.2

L 22058-66   EWT(m)/EWP(t)   IJP(c)   JD/HW

ACC NR: AP6007905   SOURCE CODE: UR/0149/66/000/001/0031/0033

AUTHOR: Sharov, V. A.;   Krylov, Ye. I.

ORG: Ural Polytechnic Institute. Rare Metals Dept.(Ural'skiy politekhnicheskiy institut. Kafedra redkikh metallov)

TITLE: Production of nickel powder by reducing nickelous hydroxide with hydrazine

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 1, 1966, 31-33

TOPIC TAGS: powder metal, nickel compound, chemical reduction, hydrazine

ABSTRACT: The reaction was accomplished in air at 21°C in a glass vessel 1 cm in diameter and 8 cm in length, for 33 min, on using pure nickelous hydroxide of the composition 51 $Ni(OH)_2 \cdot NiCO_3 \cdot 4H_2O$ and a 92% solution of N_2H_4 obtained from hydrazine hydrate by Raschig's method (F. Raschig. Ber., vol. 43, 1927 (1910). The solid products of the reaction were filtered, washed with water and alcohol and dried, whereupon they were subjected to X-ray phase analysis and chemical analysis. Findings: $Ni(OH)_2$ does not form complex compounds with N_2H_4, i.e. Ni metal is the sole product of the reaction with hydrazine. Further, the degree of the reduction of $Ni(OH)_2$ increases with increasing concentration of N_2H_4; thus, reduction with 92% hydrazine (solid-liquid ratio 1:2.33) is of the greatest interest from the practical standpoint. It is merely

Card 1/2

L 22058-66

ACC NR: AP6007905

necessary to prevent the spontaneous heating of the mixture, causing the evaporation of hydrazine. The Ni powder thus obtained was analyzed for dispersity and pycnometric density in toluene at 23°C. The density proved to be low, 6.78 g/cm^3, apparently because of the presence of pores. Thus, compared with the previously known methods of producing Ni powder, which are intricate and require intricate apparatus (electrolysis, autoclave treatment, the carbonyl method), the proposed method is simpler and more workable, and yields Ni metal powder that meets the requirements of powder metallurgy. Orig. art. has: 1 figure, 1 table.

SUB CODE: 11, 07/ ; SUBM DATE: 18Aug64/ ORIG REF: 000/ OTH REF: 004

Card 2/2 MJS

L 21190-66   EWT(m)/EWP(j)/EWP(t)   IJP(c)   JD/HW/RM
ACC NR: AP6008049   SOURCE CODE: UR/0020/66/166/004/0876/0879

AUTHOR: Krylov, Ye. I.; Sharov, V. A.; Degtyarev, V. F.

ORG: Ural Polytechnic Institute im. S. M. Kirov (Ural'skiy politekhnicheskiy institut)

TITLE: Polynuclear complex compounds of nickel carbonate with hydrazine

SOURCE: AN SSSR. Doklady, v. 166, no. 4, 1966, 876-879

TOPIC TAGS: nickel compound, hydrazine compound, complex molecule, carbonate

ABSTRACT: The paper reports results pertaining to the synthesis and determination of the structure of basic nickel carbonate $(Ni_2(OH)_2(H_2O)_2 \cdot CO_3$ and complex compounds of the latter with hydrazine, viz., $Ni_2(OH)_2(H_2O)_2N_2H_4CO_3$, $Ni_2(OH)_2(N_2H_4)_5CO_3 \cdot 3H_2O$, and $Ni(N_2H_4)_3CO_3 \cdot 1.5H_2O$. X-ray phase, chemical, and thermographic analyses, determination of electrical conductivity, magnetic susceptibility measurements, and conductometric titration with $HClO_4$ were employed. The experimental data suggest the following structure of these compounds:
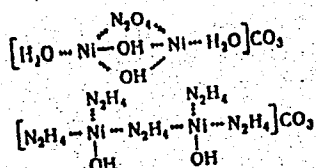
$$\left[H_2O - Ni \overset{\overset{\textstyle CO_3}{\diagup}}{\underset{\underset{\textstyle OH}{\diagup}}{-OH-}} Ni - H_2O \right]$$
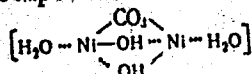
Card 1/2   UDC: 541.49.546.264'74 : 546.171.5

L 21190-66
ACC NR: AP6008049

$$[H_2O - Ni \overset{\overset{N_2O_4}{\diagup}}{\underset{\underset{OH}{\diagdown}}{-OH-}} Ni - H_2O]CO_3$$

$$[N_2H_4 - \overset{\overset{N_2H_4}{|}}{Ni} - N_2H_4 - \overset{\overset{N_2H_4}{|}}{Ni} - N_2H_4]CO_3$$
$$\qquad \overset{}{\underset{OH}{|}} \qquad \overset{}{\underset{OH}{|}}$$

It is concluded that hydrazine complexes with an insufficient number of N_2H_4 mole-cules have a polynuclear structure with hydrazine bridges. The formation of the com-plexes $[Ni_2(OH)_2 \cdot (H_2O)_2N_2H_4]CO_3$ and $[Ni_2(OH)_2(N_2H_4)_5]CO_3 \cdot 3H_2O$ from basic nickel car-bonate is apparently due to a gradual penetration of N_2H_4 molecules into the inner coordination sphere, CO_3 then H_2O being displaced into the outer sphere. The paper was presented by Academician I. I. Chernyayev on 9 June 1965. Orig. arg. has: 2 figures, 3 tables.

SUB CODE: 07/   SUBM DATE: 07Jun65/   ORIG REF: 004/   OTH REF: 004

Card 2/2 ĉĥ

L 47136-66   EWT(1)/EWT(m)/EWP(t)/T   RM/GW/GD

ACC NR: AT6031370   SOURCE CODE: UR/0000/66/000/000/0051/0058

AUTHOR: Grechishnikov, G. A.; Nomokonov, V. P.; Sharov, V. I.

ORG: none

TITLE: Characteristics of seismic waves refracted on curvilinear interfaces

SOURCE: AN SSSR. Institut fiziki Zemli. Geoakustika; ispol'zovaniye zvuka i ul'tra-zvuka v seysmologii, seysmorazvedke i gornom dele (Geoacoustics; the use of sound and ultrasound in seismology, seismic prospecting, and mining). Moscow, Izd-vo Nauka, 1966, 51-58

TOPIC TAGS: seismic wave refraction, cruvilinear interface, seismic wave model, refracted wave, travel time curve

ABSTRACT: A seismic-wave modeling experiment is described in which the physical nature and characteristics of waves refracted on the curvilinear surface of a homogeneous basement of infinite thickness are studied. The modeling was carried out on an installation consisting of pulse seismoscope, piezoelectric transducers, and photographic attachments. The seismoscope was specially designed in the Moscow Geological Prospecting Institute imeni S. Ordzhonikidze. The 10 x 10-mm transducers consisted of Rochelle salt plates treated with MBK-1 compound. The media models were made of plexiglass and duralum sheets having thicknesses of 3 and 1.5 mm. The plexiglass is simulated the overburden, while the duralum simulated the lower refracting medium.

Card   1/2

L 47136-66

ACC NR: AT6031370

Longitudinal wave velocities were 2300 m/sec (λ_0 = 4.6 cm) in the plexiglass and 5200 m/sec (λ_1 = 10.4 cm) in the duralum. The experiments showed that the first arrivals above and beyond the sectors with the curvilinear refracting boundary were those of refracted-diffracted waves and not head waves. In previous model experiments of this type it had been assumed that the waves recorded on the surface were head waves arising as a result of the propagation of the refracted wave along the curvilinear surface. Interpretation of the travel-time curves of the first arrivals recorded in the sectors with a curvilinear refracting boundary by means of existing methods invariably results in errors because of the formation of travel-time curve loops and penetration into the refracting medium. The amplitude curves of the refracted waves in the case of a curvilinear refracting boundary are characterized by a high degree of dissection. Amplitude variations are caused by interference waves arriving from various sectors of the boundary and by the energy distribution along the refracted-diffracted wave fronts. Orig. art. has: 6 figures.   [DM]

SUB CODE: 08/ SUBM DATE: 28Mar66/ ORIG REF: 008/ ATD PRESS: 5088

Card 2/2 afs

ULIKOV, N.I.; SHAROV, V.L.; VOKHANTSEV, M.F.; KORABEL'NIKOV, P.S.;
BOGUSLAVSKAYA, I.S.; STARKOV, Yu.F.; SAMSONOV, B.P.

Conveyer-type drying and impregnating oven. Prom.energ. 15
no.2:19 F '60.   (MIRA 13:5)
                    (Electric motors)

SHAROV, V.M. Docent; GUBCHENKO, A.P. Engr.,; STEPANCVA, M.G. Engr.

"A study of several methods of processing Elektron (magnesium bar alloy) in a liquid state "

Trudy, Moscow Aviation Inst. of Technology, No. 4, 1948

L 14201-66   EWT(m)/EWP(j)   RM
ACC NR: AP6002865   SOURCE CODE: UR/0286/65/000/024/0021/0021

INVENTOR: Grinblat, M. P.; Bartashev, V. A.; Klebanskiy, A. L.;
Chernyavskaya, T. L.; Prons, V. N.; Sokolov, Ye. I.; Sharov, V. N.;
Saratovkina, T. I.

ORG: none

TITLE: Preparative method for diaryl- or dialkyl-chlorophosphazo-
bis(perfluoroalkyl)phosphines.   Class 12, No. 176896 [announced by the
All-Union Scientific Research Institute of Synthetic Rubber im. Acade-
mician S. V. Lebedev (Vsesoyuznyy nauchno-issledovatel'skiy institut
sintnticheskogo kauchuka)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 21

TOPIC TAGS: organic phosphorus compound

ABSTRACT: An Author Certificate has been issued for a preparative
method for diaryl or dialkyl-chlorophosphazobis(perfluoroalkyl)phos-
phines [sic]. Diaryl- or dialkyl-phosphorus trichlorides are reacted
with bis(perfluoroalkyl)aminophosphines in the presence of tertiary
amines at -60 to -40C in an inert solvent, such as benzene.   [SM]

SUB CODE: 07/ SUBM DATE: 09Oct64/ ATD PRESS: 4192

Cord 1/1   UDC: 547.419.1.07

33936
S/079/62/032/001/014/016
D204/D302

5. 2420
5. 2410

AUTHORS: Gridina, V.F., Klebanskiy, A.L., Bartashev, V.A., and Sharov, V.N.

TITLE: Fluoroalkyl aryl derivatives of boron

PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 1, 1962, 32

TEXT: The compound $\underline{m}\text{-}CF_3 \cdot C_6H_4 \cdot B(OC_2H_5)_2$ was prepared by the action of a Grignard reagent on $\underline{m}$-bromo-benzotrifluoride and ethyl borate, decomposing the Mg complex with gaseous HCl. Its b.p. was 90° C/10 mm Hg, d_{20}^{20} 1.1433, n_D^{20} 1.4341. Decomposition of the Mg complex with 10 % H_2SO_4 gave the anhydride $(\underline{m}\text{-}CF_3 \cdot C_6H_4 \cdot BO)_3$, melting at 162-163°C. There is 1 Soviet-bloc reference.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka imeni S.V. Lebedev (All-Union Scientific Research Institute of Synthetic Rubber im. S.V. Lebedev)

SUBMITTED: July 20, 1961
Card 1/1

SHAROV, V.I., inzh. (Moskva)

Theory of the operation of a shunt-magnetized electric transformer.
Elektrichestvo no.11:64-66 N '61.   (MIRA 14:11)
                        (Electric transformers)

SHAROV, V.I., inzh.

Choice of a system for regulating the voltage of traction
substations and determination of its parameters. Trudy MIIT
no.144:50-66 '62.   (MIRA 15:10)
          (Electric railroads—Substations)
          (Electric railroads—Current supply)

SHAROV, V.I., inzh.

Calculation of the characteristics of voltage regulating devices
with excitation using phasor diagrams. Trudy MIIT no.144:67-71
'62.   (MIRA 15:10)
        (Electric railroads—Current supply)

YERMAKOV, I.G.; SHAROV, V.I.

Relationship between the deformation modulus of West Siberian
dusty sands and the porosity coefficient. Trudy NIIZHT no.28:
151-154 '62.   (MIRA 16:11)

SHAROV, V.K.

Ventilation chamber for applying toxic insulation to the cores
of turbogenerators. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.-
nauch.i tekh.inform. 16 no.4:49-51 '63.   (MIRA 16:8)
                    (Electric insulators and insulation)

ACC NR: AP6009512

SOURCE CODE: UR/0413/66/000/005/0021/0022

AUTHOR: Grinblat, M. P.; Klebanskiy, A. L.; Bartashev, V. A.; Prons, V. N.; Chernyavskaya, T. L.; Sokolov, Ye. I.; Sharov, V. N; Markova, V. I.; Saratovkina, T.I.

ORG: none

TITLE: Preparation of phosphonitrile derivatives. Class 12, No. 179311 [Announced by the All-Union Scientific-Research Institute of Synthetic Rubber (Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 5, 1966, 21-22

TOPIC TAGS: phosphonitrile, phosphonitrile derivative

ABSTRACT: An Author Certificate has been issued describing a method for synthesizing phosphonitrile derivatives by the interaction of organophosphorus compounds with sodium azides in a solvent or with ammonia followed by treatment with chlorine and tertiary amine during cooling. To obtain phosphonitrile derivatives with alternating substituents at the phosphorus atom, dialkyl(diaryl)-chlorophosphazobis-(perfluoro alkyl)phosphines are suggested for use as initial organophosphorus compounds. [LD]

SUB CODE: 11/   SUBM DATE: 18Jan65

Card 1/1 BLG   UDC: 547.419.1.07

SHAROV, V. S., Engineer

"Theoretical and Experimental Investigation of a Regulated Single-Core Transformer."
Sub 3 May 51, Moscow Order of Lenin Power Engineering Inst imeni V. M. Molotov

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

SHAROV, V.S., kandidat tekhnicheskikh nauk.

Dolivo-Dobrovol'skii's three-phase, single-armature converter. Elektrichestvc
no.11:75 N '53.   (MLRA 6:10)

1. Moskovskiy energeticheskiy institut im. Molotova.
                                     (Electric current converters)

621.314.53

4041. Investigation of a regulated rotary converter. E. A. GORYAINOV AND V. S. SHAROV. *Elektrichestro,* 1954, No. 3, 14–19. *In Russian.*

An analytical and experimental investigation of a regulated rotary convertor, dealing with: (1) the variation of the voltage across the commutator brushes during a full rotation of the axis of the field; (2) variation of the currents in the control windings when the ampere-turns of the first harmonic of the flux are kept constant; (3) influence of the armature reaction on the p.f. during regulation. The investigation was carried out on salient and non-salient pole convertors, for no-load and on-load conditions, and yielded satisfactory agreement between theory and experiment.

B. F. KRAUS

Moscow Power Eng. Inst. in Molotov.

4042.   Transient processes in the operation of a controllable rotary converter.   V. S. SHAROV.   *Elektrichestvo*, 1954, No. 5, 24-6.

Results are presented of an oscillographic investigation of the operation of a controllable rotary converter. The angular rotor displacement caused by the displacement of the axis of the field of the machine and also the rotor oscillations due to the regulating process were studied. The amount of the angular rotor displacement was found, this being important in determining the timing of the regulation. It was also found that the presence of damper windings permits considerable reduction in the required power for the regulation, i.e. the ampere-turns of the regulating winding, without impairing the stability of the operation of the convertor or causing rotor oscillations (hunting) during the regulation process. The commutation of such a convertor also remains satisfactory.   B. F. KRAUS

621.314.53 : 621.317.6

SHAROV,V.S., dotsent, kandidat tekhnicheskikh nauk

Application of the theory of two reactions in the study of the
rotary converter. Trudy MEI no.15:173-176 '55. (MIRA 8:11)

1. Kafedra elektricheskikh mashin Moskovskogo ordena Lenina
energeticheskogo instituta imeni V.M.Molotova.
(Rotary converters)

SHAROV , V.S.

112-3-5895

Translation from: Referativnyy Zhurnal, Elektrotekhnika, 1957, Nr 3,
           pp. 119-120 (USSR).

AUTHOR: Sharov, V.S.

TITLE: Electromagnatic Slipping Clutch with Beak-Shaped Poles
          (Elektromagnitnaya mufta skol'zheniya c klyuvoobraznymi
          polyusami)

PERIODICAL: Tr. Mosk. energ, in-ta, 1956, Nr 16, pp. 149-158

ABSTRACT:
A method is given for designing slipping clutches with
beak-shaped poles and a solid steel armature. The clutch
operates during brief periods of slippage and is used as
a flexible coupling between the primary motor and actu-
ating mechanism in drives for metal cutting machines,
excavators, etc. The primary part of the clutch, con-
sisting of an exciting winding and poles, is located on
the driving shaft. On the driven shaft is located the
secondary part- the armature - in which the currents of

Card 1/4

112-3-5895

Electromagnetic Slipping Clutch with Beak-Shaped Poles

slippage frequency are induced. The torque transmitted
by the clutch is

$$M = \frac{Ps}{Sw_1}$$

where the losses in the core are $P_s = P_1 - P_2$; P_1 and
P_2 are the respective capacities of the driving and
driven shafts. The general dimensions of the clutch are
determined by the equation

$$D^2 l = \frac{5.52 \cdot P_s \cdot 10^8}{\alpha B_\delta A_s n_1 \cos \Phi_2}$$

where A_s is the linear load, and B_0 the induction in
the gap. The height of the active layer is computed by
means of the formula

$$h = \sqrt{\frac{I_p}{2.22 \cdot 0.87 \cdot f_{2s} B \cdot 10^{-8}}} \quad ,$$

where the equivalent value of current I in the active

Card 2/4

112-3-5895

Electromagnetic Slipping Clutch with Beak-Shaped Poles

layer per unit length of the armature circumference,

$$F_{ps} = \frac{p(n_2 - n_2)}{60} \quad , \text{ is}$$

$$I = \int_0^\infty J_{et} \, dx \quad ;$$

$j = J_{et}\sqrt{2}$ is the amplitude of the current density at depth x determined in a number of experiments by the equation

$$j' = J_c e^{-x/h}$$

The amplitude of the current density at the surface of the layer is determined by

$$Jc = \frac{B_c \, W_s \, D}{2p \, \bar{p}}$$

Card 3/4

Electromagnetic Slipping Clutch with Beak-Shaped Poles 112-3-5895

The losses are also determined by means of the following expression for losses in an element of steel volume:

$$\Delta P = \int_0^- Je_t{}^\nu p dx = \frac{Jc^2}{4} ph,$$

where ρ is the resistivity of the core material.

M.I.K.

ASSOCIATION: Moscow Institute of Power Engineering (Mosk. energ. in-t)

Card 4/4

SHAROV, V.S., kandidat tekhnicheskikh nauk, dotsent.

Reaction of the solid steel armature in an electromagnetic slip coupling. Elektrichestvo no.10:42-45 O '57.   (MLRA 10:9)

1. Moskovskiy energeticheskiy institut.
                            (Electric machinery)

8(2)   PHASE I BOOK EXPLOITATION   SOV/1641

Sharov, Vladimir Semenovich

Elektromagnitnyye mufty skol'zheniya (Electromagnetic Slip
    Couplings) Moscow, Gosenergoizdat, 1958. 102 p. 9,000
    copies printed.

Ed.: D.N. Morozov; Tech. Ed.: G.I. Matveyev.

PURPOSE: This book is intended for students specializing in
    electric machinery and apparatus, such as electric drives,
    electric equipment in mining engineering, aircraft, auto-
    mobiles, and ships, and also for engineers and technicians
    designing electromagnetic slip couplings.

COVERAGE: The author explains the basic problems in the theory
    of electromagnetic slip couplings and describes design me-
    thods. He supplies experimental characteristics based on the
    information gathered from technical literature and materials
    from various industrial plants. Examples of design methods

Card 1/6

Electromagnetic Slip Couplings   SOV/1641

are given.   The author states that neither in Soviet nor
foreign technical literature is there a textbook on the theory
and design of electromagnetic couplings, even though there
are articles and papers devoted to problems in this field.
Besides the literature given on pages 102-103 he refers to
materials supplied by the following plants: Khar'kovskiy zavod,
"Elektrosila" (Khar'kov "Elektrosila" Plant), Yaroslavskiy
zavod, "Elektrosila" (Yaroslavl' "Elektrosila" Plant), NII
derevoobrabatyvayushchikh stankov (Scientific Research In-
stitute of Woodworking Machines), and NII metallorezhushchikh
stankov (Scientific Research Institute of Metalworking
Machines) of ENIMS (Experimental Scientific Research Institute
of Milling Machines). He thanks Professor A.N. Larionov,
Corresponding Member of USSR Academy of Sciences, for his
assistance. There are 35 references, 28 of which are Soviet,
5 English and 2 translations into Russian.

TABLE OF CONTENTS:

Card 2/6

Electromagnetic Slip Couplings   SOV/1641

Card 3/6

Electromagnetic Slip Couplings   SOV/1641

Card 4/6

Electromagnetic Slip Couplings ....,   SOV/1641

Card 5/6

Electromagnetic Slip Couplings   SOV/1641

Bibliography   102

AVAILABLE: Library of Congress

                                    RRZ/rj
                                    6-22-59

Card 6/6

SHAROV, Vladimir Semenovich, kand.tekhn.nauk, dotsent

Study and design of a high-speed asynchronous motor.   Izv. vys.
ucheb. zav.; elektromekh. 4 no.12:22-30 '61.   (MIRA 15:1)

1. Kafedra elektricheskikh mashin Moskovskogo energeticheskogo
instituta.
                        (Electric motors, Induction)

SHAROV, Vladimir Semenovich; AL'PER, N.Ya., retsenzent; ZECHKHIN, B.S.,
red.; BORUNOV, N.I., tekhn. red.

[Electromechanical inductor-type alternators] Elektromashinnye in-
duktornye generatory. Moskva, Gos. energ.izd-vo, 1961. 143 p.
(MIRA 14:11)

(Electric generators)

SHAROV, V.S.

Investigation of the characteristics of high-speed asynchronous
motors with various rotor designs. Izv. vys. ucheb. zav.;
elektromekh. 4 no. 1:51-58 '61.   (MIRA 14:4)
                    (Electric motors, Induction)

S/196/63/000/003/012/012
A052/A126

AUTHOR: Sharov, V.S.

TITLE: Electromechanical characteristics of an electric spindle for
             120,000 - 140,000 rpm with a frequency-speed control

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no. 3,
             1963, 16, 3K73. (Tr. Vses. n.-i. konstrukt.-tekhnol. in-ta
             podshipnik. prom-sti. no. 2(26), 1961, 44 - 56)

TEXT: Electric spindles for 120,000 - 140,000 rpm (designed at ВНИИП
(VNIIP) and manufactured at the Moscow electro-pump plant) are described;
they are intended for internal grinding machines for fine grinding of ball
races 2 mm in diameter. A change of the rotating speed of the spindle, nec-
essary for having a constant linear speed at the circumference of the abra-
sive disk by its wear, is achieved by changing the supply frequency within
2,000 - 2,400 cps. The power of the experimental spindles is 100 - 250 w,
at maximum rotational speed the stator winding star voltage is 220 v. The
frequency speed control is realized at a constant magnetic flux by the law
U/f=const. For manufacturing the electric spindle electrotechnical sheet

Card 1/2

Electromechanical characteristics of ...

steel Э 41 (E41) (for the rotor) and Э 44 (E44) (for the stator) is used. The airgap induction is 2,500 - 3,500 gs and in steel 7,500 - 10,000 gs. In the calculation an efficiency of 0.30 - 0.45 and a power factor of 0.6 - 0.65 are assumed. The lubrication of the bearings is realized by oil spray. The stator winding in the motor is of ПЭВ-2 (PEV-2) wire and the rotor winding of aluminum rods and aluminum short-circuited rings. The motor is water-cooled. The spindle accelerated to full speed at a frequency of 2,000 cps in 20 sec.; its rated critical speed at a 14-mm diameter of the rotor roller and an eccentricity equal to 0.01δ (δ is the airgap) with an allowance for centrifugal forces is 178,500 rpm. Actually, considering all forces acting on the rotor at the rated load, the critical speed is 78,000 rpm. Information is given on the selection and calculation of parameters and design elements of the motor (the number of stator and rotor grooves, calculation of magnetic circuit, of inductive and pure resistances) characteristics and comparison of rated data with those actually obtained on experimental specimens. There are 6 figures.

E. Minsker

[Abstracter's note: Complete translation.]

Card 2/2

Sharov, Vladimir Semenovich

Sverkhvysokoskorostnyye asinkhronnyye elektrodvigateli (Superhigh-
   Velocity Induction Motors) Moscow, Gosenergoizdat, 1963.   287 p.
   Errata slip inserted. 6500 copies printed.

Ed.: A. I. Dul'kin; Tech. Ed.:   N. I. Borunov.

PURPOSE: This book is intended for students specializing in super-
   high-speed electric drives, electric aviation machinery, and
   specialized micromachines. It may also be of use to engineering
   and technical personnel concerned with the design, production, and
   operation of superhigh-speed electric motors and systems.

COVERAGE: The book deals with superhigh-speed induction electric
   motors of 150—200 thousand rpm used in internal grinders and other
   installations. Peculiarities of electromagnetic design are dis-
   cussed. Rating and the experimental, operating, and starting
   characteristics of high-speed motors are given. The book presents
   methods of rotational speed control and describes power supply
Card 1/10

Superhigh-Velocity (Cont.)   SOV/6576

   circuits of the motors, the construction of motor electric
   elements with examples of their calculation, and the problems
   connected with the tests and operations of these motors. The
   author thanks Professors N. A. Spitsyn, and G. N. Petrov. There
   are 104 references: 86 Soviet and 18 non-Soviet.

TABLE OF CONTENTS:

Card 2/10

22679-66   EWT(1)

ACC NR: AP6006704   SOURCE CODE: UR/0292/64/000/003/0012/0015

36

B

AUTHOR: Sharov, V. S. (Candidate of technical sciences)

ORG: none

TITLE: Theory of the inductor-type induction motor

SOURCE: Elektrotekhnika, no. 3, 1964, 12-15

TOPIC TAGS: inductor motor,   electric motor, magnetic induction

ABSTRACT: Some relations pertaining to the theory of inductor-type motor are
developed; the motor has a toothed unwound rotor and a 3-phase-primary-and-secondary-
carrying stator. The secondary-winding pitch is given by $Y_2 = Y_1/2K$, where
$K=1,2,3,4,...$ The number of secondary pole pairs is: $p_2 = 2Kp_1$. Formulas for the
coefficients of reduction of emf and current are derived. An equivalent circuit
and a vector diagram are developed. The estimated and experimental short-circuit
resistance and impedance values have been found to coincide, for two 70-v test
motors. A formula for the electromagnetic torque is presented. Orig. art. has:
6 figures, 30 formulas, and 2 tables.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 000

Card 1/1   UDC: 621.3.044.3.001.1

L 13119-66   EWT(1)

ACC NR: AP6006712   SOURCE CODE: UR/0105/65/000/006/0050/0055

AUTHOR: Sharov, V. S. (Candidate of technical sciences; Docent)   58

ORG: Moscow Power Institute (Moskovskiy energeticheskiy institut)   B

TITLE: Current hodograph of an asynchronous induction motor with capacitors

SOURCE: Elektrichestvo, no.6, 1965, 50-55

TOPIC TAGS: electric motor, electric inductance, HF, capacitor, automatic control

ABSTRACT: High frequency induction motors (HIM) offer significant advantages
when compared with other motors used for automatic control of high frequency
devices (see, e.g., V. S. Sharov, Elektrotekhnika [Electrical Engineering],
1964, no 3). Consequently, the author studies HIM's with capacitors in the
secondary stator coil. The presentation of the design peculiarities of the
HIM's is followed by the presentation of its equivalent circuit, the discussion
of the electromagnetic moment and the slipping of HIM's, the evaluation of
the geometric locus of the HIM currents, and the derivation of the characteristics
from the current hodograph. The slipping formulas are applicable also to the
ordinary asynchronous motor with contact rings whose rotor coil is connected
with capacitors. The HIM under study does not have optimum characteristics
since it was designed for experimental investigations of the properties of
Card 1/2   UDC: 621.313.333:012.11

L 13119-66

ACC NR: AP6006712

such a type of electrical machines. Orig. art. has: 5 figures, 12 formulas, and 3 tables. [JPRS]

SUB CODE: 09, 13 / SUBM DATE: 15Dec64 / ORIG REF: 002

Card 2/2   H W

L 41617-66   EWT(1)

ACC NR: AP6013417   SOURCE CODE: UR/0144/65/000/011/1222/1228

                                                            40

AUTHOR: Sharov, V. S. (Candidate of technical sciences, Docent)   37

                                                             B

ORG: Department of Electrical Machines, Moscow Power-Engineering Institute
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TITLE: Peculiarities in designing inductor-type induction motors

SOURCE: IVUZ. Elektromekhanika, no. 11, 1965, 1222-1228

TOPIC TAGS: inductor motor, induction motor, electric motor, servomotor,
ELECTRIC ROTATING EQUIPMENT PART

ABSTRACT: The calculation of characteristics of a 3-phase h-f small-power
induction motor carrying all windings on the stator is set forth. The primary and
secondary windings have different slot pitches and different numbers of pole pairs
which result in higher winding factors and higher induced emf's. Formulas are
developed for calculating: winding reactances, electromagnetic torque, critical

Card 1/2   .   UDC: 621.313.333.

L 41617-66

ACC NR: AP6013417   *3*

slip, and magnetic-flux utilization factor. Estimated and experimental plots of
the current vs. (0—5000) rpm and vs. (0—60 w) power and torque vs. slip are
shown for 400- and 1000-cps motors. It is found that the magnetic-flux utilization
factor of the above motor amounts to one-fourth that of the standard rotor-wound
induction motor. Motor characteristics were determined by "Engineers V. A.
Nesterin, N. V. Meronov, and Ye. A. Lukin." Orig. art. has: 5 figures,
26 formulas, and 1 table.

SUB CODE: 09 / SUBM DATE: 28May64 / ORIG REF: 008

Card 2/2

SHAROV, V.S., kand.tekhn.nauk

Generalized current diagrams of asynchronous machines
with condensers. Elektrotekhnika 36 no.12:16-18
D '65.   (MIRA 19:1)